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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,760	09/23/2002	Gerhard Schwarz	08215-517US1	3697

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EXAMINER	
NGUYEN, PHUONGCHI T	
ART UNIT	PAPER NUMBER
2833	

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

LF

Office Action Summary	Application No.	Applicant(s)	
	10/069,760	SCHWARZ ET AL.	
	Examiner	Art Unit	
	Phuongchi Nguyen	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 12-25* is/are rejected.

7)☒ Claim(s) *10 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. For instance, the numeral reference of "annular member 27" of claim 12, lines 2; "a circumferentially extending edge flange 32" of claim 14, line 2; "a diskshaped switching means 34" of claim 15, line 2; "fastening disk 35 and switching disk 36" are shown. However, the specific details of the relationship between Figures 1-3, 5 and 10 cannot be seen clearly. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. Regarding to figures 12-14 have two drawings. Each figure must be labeled. For example: "figure 12" should be -- Figure 12A -- and --Figure 12B --.

Claim Rejections - 35 USC § 112

3. Claims 1-25 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 5, what is the meaning of "the socket insert is rotatable between off and on position"?.

4. There is poor correspondence between the specification and drawings, for example: in the specification page 10, last paragraph, how can a disk shaped switching means 36 (not shown in figure 5) by means of a dog 41 can switch in various locking positions. Figures 1-3 are schematic side views, the detailed relationship between a trip cam 60, a switching mean 61 and an

interrupted switch 62 are not shown. The numeral references in figures 4 and 5 are not related. Thus, it renders the invention very difficult to understand the invention.

5. Due to the above, the claims 15-22 and 24-25 cannot be examined on their merits.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-6 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al (US5386486) in view of AAPA of Fan et al (US5386486).

In regard to claim 1, Fan et al a plug connector (figure 4) comprising: a plug (14), a socket (12) including at least a housing (16) and a socket insert (44) supported in the housing (16) such that the socket insert (44) is rotatable, the socket insert (44) being adapted to be rotated between its positions by means of the plug (14) inserted in the socket (12), and a locking element (48) supported in the socket insert (44) such that the locking element (48) is displaceable between a locking position (column 6, lines 2-6) and a release position (column 6, liens 29-31), the locking element (48) being provided with at least one projection (end of 52) which, in the condition in which the(pin of) plug (14) is inserted in the socket insert (44), is adapted to be arranged in a complementary aperture (50) in the plug (14) thus arranging the locking means (54) at its release position (column 6, lines 29-31), wherein the socket insert (44) is rotatable when the locking means (54) is in the release position (when pin 48 rotated, the socket insert will move relative to the pin 48). Fan et al's connector is not an electric plug connector. However, AAPA of Fan et al teaches a connector for fiber can be an electrical connector or electrical

contact (column 1, lines 22-25). It would have been obvious to one having ordinary skill at the time the invention was made to change the connector of Fan et al to be an electrical connector as taught by AAPA of Fan et al for having a variety connectors when the user needed. The fiber connector taught by Fan et al is not specifically for an explosion-proof areas; however, it is used in any environment, it would have been obvious to one having ordinary skill at the invention was made to provide the connector of Fan et al such as an electrical connector for an explosion-proof areas.

In regard to claim 2, Fan et al a plug connector (figure 4) wherein the locking element (48) is implemented as a locking pin (48) which is supported in the socket insert (44) such that it is longitudinally displaceable between the locking and release positions (column 6, lines 2-6 and 29-31) essentially in the plug-in direction of the plug (14).

In regard to claim 3, Fan et al discloses (figure 4) in a release position (unlock position), the locking pin (48) projects with one of its ends as a projection beyond the socket insert (12) in the direction of the plug (14).

In regard to claim 4, Fan et al discloses (figure 4) the plug connector wherein the locking pin (48) has a force (created by a spring 56) applied thereto in the direction of the release position.

In regard to claim 5, Fan et al discloses (figure 4) the plug connector wherein the locking pin (48) is arranged essentially centrally in the socket insert (44).

In regard to claim 6, Fan et al discloses (figure 4) the plug connector wherein the projection (52) is implemented such that its cross-section is complementary to the cross-section of the aperture (50).

In regard to claim 23, Fan et al discloses (figure 4) the plug connector wherein the projection (52) has an angular cross-section.

8. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al (US5386486) in view of A.L.Nelson (US3525068).

In regards to claims 7 and 8, Fan et al discloses the invention, but lacks a longitudinal guide means on the socket insert for the locking pin. However, Nelson teaches (figure 1) the plug connector wherein the socket insert (29) is provided with a longitudinal guide means (a groove at the aperture 34 of 29, and for fitting on 38 of 11) for the locking pin (27), the cross-section of the longitudinal guide means (the groove at 34) being substantially equal to the cross-section of the projection (38). It would have been obvious to one having ordinary skill at the time the invention was made to modify the socket insert of Fan et al by providing a longitudinal guide means as taught by Nelson for having an access to let the locking pin be inserted in locking and release positions.

Further regarding claim 8, Fan et al discloses the plug connector wherein reception holes (43) for contact pin bushings (42) are arranged around the longitudinal bore (46) in the socket insert (44). Fan et al lacks a longitudinal guide means in the socket insert.

In regard to claim 9, Fan et al discloses (figure 4) the plug connector wherein the locking pin (48) projects with its lower end (61) located opposite the plug (14) and is provided with a stop (surfaces of 61) which is adapted to be brought into contact with a lower end of the slot (54).

In regard to claim 10, Fan et al discloses (figure 4) the plug connector wherein the stop (surface of 61) is implemented as an upper end of an end sleeve of the locking pin (48) which is open at the bottom (side of 44, facing to 14), the end sleeve being adapted to accommodate at

least part of a spring (56) for applying a force to the locking pin (48) in the direction of the locking-pin release position.

9. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al (US5386486) in view of A.L.Nelson (US3525068) applied as claim 8 above, and further in view of Hermann, Jr. (US4193655).

In regard to claim 12, Fan et al discloses the invention, but lacks an annular element. However, Herrmann, Jr. teaches the plug connector wherein the socket insert (18) is supported in an annular element (126) at least in the lower end section thereof, the socket insert (18) being adapted to be inserted together with the annular element (126) in a plug housing (134) (figures 1 and 3) and the annular element (126). It would have been obvious to one having ordinary skill at the time the invention was made to modify the socket insert of Fan et al by providing an annular element as taught by Hermann for securing the socket insert at the lower end in the housing connector during assembly.

In regard to claim 13, Fan et al discloses the socket insert (14) and the plug housing (of 14) are (released) flush with one another at their respective lower ends facing the housing (of 14) and project partially into a housing aperture (opening of 14, adjacent 40) in the housing (of 14).

In regard to claim 14, Fan et al discloses a plug connector wherein the plug housing (of 14) is provided with a circumferentially extending edge flange (adjacent 14, in figure 4) (figure 1), which is secured to an edge of the housing aperture (opening of 14, adjacent 40) .

Allowable Subject Matter

10. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 11, the prior art fails to teach or suggest the plug connector wherein a centering pin is arranged centrally in the end sleeve, at least part of the spring being adapted to be pushed onto the centering pin and combine all limitation of all claims above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is 703-305-0729. The examiner can normally be reached on 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on 703-308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8359 for regular communications and 703-746-8359 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0729.

August 20, 2003

P. Bradley

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